

CLAIMS:

1. A captioning system for providing captions for a presentation to a user, the captioning system comprising:

5 a caption store operable to store one or more sets of captions each set being associated with one or more presentations and each set comprising a plurality of captions for playout at different timings during the associated presentation; and

10 a user device having:

i) a memory operable to receive and store at least one set of captions for a presentation to be made to an associated user, from said caption store;

15 ii) a receiver operable to receive synchronisation information defining the timing during the presentation at which each caption in the received set of captions is to be output to the user;

20 iii) a caption output circuit operable to output to the associated user, the captions in the received set of captions; and

25 iv) a timing controller responsive to said received synchronisation information and operable to control said caption output circuit so that said captions are output to said user at the timings defined by said synchronisation information.

2. A system according to claim 1, wherein said captions include text.

30 3. A system according to claim 2, wherein said captions include text for any dialogue in the presentation.

4. A system according to claim 2 or 3, wherein said caption output circuit is operable to output said captions to a display device associated with the user device for display to the user.

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5. A system according to claim 4, wherein said captions include formatting information for controlling the format of the text displayed on said display.

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6. A system according to claim 4 or 5, wherein each caption includes duration information defining the duration that the caption should be displayed to the user.

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7. A system according to any of claims 4 to 6, wherein said caption includes timing information defining the time at which the caption should be displayed to the user during the presentation.

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8. A system according to any preceding claim wherein said captions include audio data and wherein said caption output circuit is operable to output said audio data to an electro-acoustic device for converting the audio data into corresponding acoustic signals.

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9. A system according to any preceding claim, wherein said presentation includes audio.

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10. A system according to any preceding claim, wherein said presentation includes video.

11. A system according to any preceding claim, wherein said presentation is a film.

5 12. A system according to any preceding claim, wherein said caption store is formed in a memory card which is insertable into said user device and wherein said user device includes a reader for reading captions from said memory card when inserted therein.

10 13. A system according to any of claims 1 to 11, wherein said caption store is provided in a computer system and wherein said user device includes means for communicating with said computer system.

15 14. A system according to claim 13, wherein said computer system is remote from said user device and wherein said user device has an associated communication module for communicating with said remote computer system.

20 15. A system according to claim 14, wherein said user device includes a housing and wherein said communication module is provided within said housing.

25 16. A system according to claim 14 or 15, wherein said communication module is operable to communicate with said remote computer system using a wireless communication link.

30 17. A system according to claim 16, wherein said user device comprises a mobile telephone.

18. A system according to any proceeding claim, wherein said user device comprises a portable computing device such as a personal digital assistant.

5 19. A system according to any preceding claim, wherein said synchronisation information defines expected time points for one or more predetermined portions of the presentation.

10 20. A system according to claim 19, wherein said user device comprises a monitoring circuit operable to monitor said presentation to identify the actual time points of said one or more predetermined portions and wherein said timing controller is responsive to the
15 difference between the actual timings and the expected timings to control the outputting of the captions by said caption output circuit.

20 21. A system according to claim 20, wherein said predetermined portions of said presentation correspond to portions of audio of the presentation and wherein said monitoring circuit includes a microphone for sensing the audio of the presentation and a comparator for comparing the received audio with the expected portions of the
25 audio defined by said synchronisation information.

22. A system according to claim 20 or 21, wherein said user device has an acquisition mode of operation in which an output of said monitoring circuit is compared with
30 said predetermined points defined by said synchronisation information to identify a current position within said

presentation and a tracking mode of operation in which the output of said monitoring circuit is compared with a current predetermined portion defined by said synchronisation information.

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23. A system according to claim 22, wherein during said tracking mode of operation, said monitoring circuit is operable to monitor said presentation during a predetermined time window around the expected time point defined by said synchronisation information for the current predetermined portion.

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24. A system according to any preceding claim, wherein said receiver in said user device is operable to receive said synchronisation information from said caption store.

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25. A system according to any of claims 1 to 23, wherein said synchronisation information is embedded within said presentation and wherein said user device includes a monitoring circuit operable to monitor the presentation and to extract said synchronisation information therefrom.

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26. A system according to claim 25, wherein said synchronisation information is embedded within the audio of said presentation.

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27. A system according to claim 25 or 26, wherein said synchronisation information comprises synchronisation codes occurring at different timings during the presentation.

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28. A system according to claim 27, wherein each synchronisation code is unique to uniquely define the position in the presentation.

5 29. A system according to any preceding claim, wherein said caption store includes a plurality of sets of captions for a plurality of different presentations.

10 30. A system according to claim 29, wherein said user device is operable to capture a portion of said presentation and is operable to transmit the captured portion to said caption store and when said caption store is operable to use said captured portion of the presentation to identify the presentation being made and
15 to transmit the associated set of captions for the identified presentation to said user device.

20 31. A system according to claim 30, wherein said user device is operable to process the captured portion of the presentation to extract data characteristic of the captured portion and is operable to transmit said characteristic data to said caption store, and wherein said caption store is operable to use said characteristic data to identify the presentation being made and to
25 transmit the associated set of captions for the identified presentation to the user device.

30 32. A system according to any preceding claim, wherein said presentation is given at a venue, wherein said venue is operable to provide an activation code, wherein said user device is operable to receive said activation code

and further comprises an inhibitor for inhibiting the operation of said caption output circuit unless said user device has received said activation code.

5 33. A user device for use in a captioning system, the user device comprising:

 i) a memory operable to receive and store at least one set of captions for a presentation to be made to an associated user, from said caption store;

10 ii) a receiver operable to receive synchronisation information defining the timing during the presentation at which each caption in the received set of captions is to be output to the user;

 iii) a caption output circuit operable to output to
15 the associated user, the captions in the received set of captions; and

 iv) a timing controller responsive to said received synchronisation information and operable to control said caption output circuit so that said captions are output
20 to said user at the timings defined by said synchronisation information.

34. A computer system for use in a captioning system, the computer system comprising a caption store operable
25 to store one or more sets of captions each set being associated with one or more presentations and each set comprising a plurality of captions which playout at different timings during the associated presentation and each caption having associated synchronisation
30 information defining the timing during the presentation in which each caption in the received set of captions is

to be output to the user;

a receiver operable to receive a request for a set of captions from a user device; and

5 an output circuit operable to output the requested set of captions and the synchronisation information to the user device.

35. A method of manufacturing a computer readable medium storing caption data and synchronisation data for use in a captioning system, the method comprising:

10 providing a computer readable medium;
providing a set of captions that is associated with a presentation which comprises a plurality of captions for playout at different timings during the associated presentation;

15 providing synchronisation information defining the timing during the presentation at which each caption in the set of captions is to be output to a user;

receiving a computer readable medium;
20 recording computer readable data defining said set of captions and said synchronisation information on said computer readable medium; and

outputting the computer readable medium having the recorded caption and synchronisation data thereon.

25 36. A computer readable medium storing computer executable instructions for causing a general purpose computing device to operate as the user device in any of claims 1 to 33.

30 37. A method of providing captions for presentation to

a user, the method comprising:

storing, at a caption store, one or more sets of captions each being associated with one or more presentations and each comprising a plurality of captions for playout at different timings during the associated presentation; and

at a user device:

receiving and storing at least one set of captions for a presentation to be made to an associated user from said caption store;

receiving synchronisation information defining the timing during the presentation at which each caption in the received set of captions is to be output to the user;

outputting the captions in the received set of captions to the associated user; and

in response to the received synchronisation information controlling the outputting step so that said captions are output to the user at the timings defined by the synchronisation information.

38. A captioning system for providing captions for a presentation to a user, the captioning system comprising:

a caption store operable to store one or more sets of captions each set being associated with one or more presentations and each set comprising one or more captions for playout during the associated presentation; and

a user device having:

i) a memory operable to receive and store at least one set of captions for a presentation to be made to an associated user, from said caption store;

ii) a receiver operable to receive synchronisation information defining the timing during the presentation at which the or each caption in the received set of captions is to be output to the user; and

5 iii) a caption output circuit operable to output to the associated user, the or each caption in the received set of captions; and

10 iv) a timing controller responsive to said received synchronisation information and operable to control said caption output circuit so that the or each caption is output to said user at the timing defined by said synchronisation information.

39. A captioning system for providing captions for a presentation to a user, the captioning system comprising:

15 a caption store operable to store one or more sets of captions each set being associated with one or more presentations and each set comprising a plurality of captions for playout at different timings during the associated presentation; and

20 a user device having:

 i) a memory operable to receive and store at least one set of captions for a presentation to be made to an associated user, from said caption store;

25 ii) a receiver operable to receive synchronisation information defining the timing during the presentation at which each caption in the received set of captions is to be output to the user; and

30 iii) a caption output circuit operable to output to the associated user, the captions in the received set of captions at the timings defined by said synchronisation

information.

40. A captioning system for providing captions for a presentation to a user, the captioning system comprising:

5 means for storing one or more sets of captions each set being associated with one or more presentations and each set comprising a plurality of captions for playout at different timings during the associated presentation; and

10 a user device having:

i) means for receiving captions from said captions store;

15 ii) means for receiving synchronisation information defining the timing during the presentation at which each caption is to be output to the user;

iii) means for outputting the captions to a user associated with the user device; and

20 iv) means responsive to the synchronisation information for controlling said output means, so that said captions are output to said user at the timings defined by said synchronisation information.

41. A computer readable medium storing caption data and synchronisation data for a presentation, the caption data
25 defining a set of captions for the presentation and comprising a plurality of captions for playout at different timings during the presentation; and synchronisation data defining the timing during the presentation at which each caption in the received set
30 of captions is to be output to a user.